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February 23, 2017

By Electronic Filing

Ms. Marlene H. Dortch, Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Re: *Ex Parte Communication, GN Docket No. 12-268 (Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions), MB Docket No. 16-306 (Post Incentive Auction Broadcast Transition Plan)*

Dear Ms. Dortch,

This letter is submitted, pursuant to Section 1.1206(b)(1) of the FCC's rules, to notify you of a meeting held February 22, 2017, among representatives of American Tower Corporation ("ATC") and the FCC staff. The meeting was intended to update the staff regarding the steps ATC has undertaken to prepare for the repack of TV licensees following the Incentive Auction. Representing ATC were Peter Starke, Vice President – Broadcast; and ATC's undersigned counsel. Attending the meeting in person from the FCC staff were Gary Epstein, Jean Kiddoo, Barbara Kreisman, Pam Gallant, Sasha Javid, Rachel Kazan, Evan Morris, Erin Griffith, James Costa, Tony Coudert, Mark Columbo, Brian Smith, Karla Hoffman, Kevin Harding, Joyce Bernstein, Charlie Meisch, and Rudy Sultana. Hillary deNigro attended via telephone. ATC discussed the issues identified in the attached presentation. Please contact the undersigned if you have any questions.

Sincerely,

/s/Christine M. Crowe

Christine M. Crowe
Jonathan V. Cohen

cc:	Gary Epstein	Rachel Kazan	Brian Smith
	Jean Kiddoo	Evan Morris	Karla Hoffman
	Barbara Kreisman	Erin Griffith	Kevin Harding
	Pam Gallant	James Costa	Joyce Bernstein
	Hillary deNigro	Tony Coudert	Charlie Meisch
	Sasha Javid	Mark Columbo	Rudy Sultana

FCC – TV Incentive Auction

American Tower TV Repack Planning

UPDATE

February 22, 2017



AMERICAN TOWER®



Agenda

- › Repack Planning Goals
- › American Tower TV Transmission Facilities
- › Confidential Letter Data
- › Repack Readiness
- › FCC Phased Cutover Plan
- › Broadcast Tower Riggers
- › Broadband Antenna Initiative
- › Repack Implementation Risks
- › Asks
- › Summary



Repack Planning Goals

ATC remains focused on a safe and efficient repack construction period

- › **Speed to Market** – Meeting FCC’s repack deadline
- › **Operational Ease** – Manage process, reduce complexity, deliver highest level of service
- › **Minimize OTA Downtime** - Lessen off-air for all tower tenants
- › **Turnkey Offers** – Propose complete, end-to-end solutions
- › **Future-Proof Solutions** – Runway to ATSC 3.0 next-gen broadcasting
- › **Transmission Redundancy** – Pre and post re-pack back up sites
- › **Technical Superiority** – RF and tower structure expertise
- › **Industry Leadership** – Trusted “Go-To” team with focus on broadcast customers and towers



ATC – TV Transmission Facilities

- **357** Full Power and Class A stations operate on owned, managed, & leased sites
- **175** towers with at least **one** Full power/Class A TV
- **74** towers with **2+** Full Power/Class A TV
- **65** “Complex” sites (Candelabra, Mountaintop, Broadband Antenna)
- **29** owned and operated Broadband UHF antenna systems
- **97** DMAs with towers supporting TV transmission
- Recent information indicates 109+/- towers will be impacted
- Focus has been on 84 “Priority” towers



TV Licensees sharing information with ATC



- **357** leases - Information received from **183** Stations (51%)
- Yes, auction winner - **22** or (12%)
- No, not an auction winner - **161** (88%)
- Remain on existing channel – **56** (35%)
- Repacked to a new channel – **105** (65%)*
 - * Existing is Ch. 38 & above, **64** (61%)
 - * Existing is Ch. 36 and below, **41** (39%)

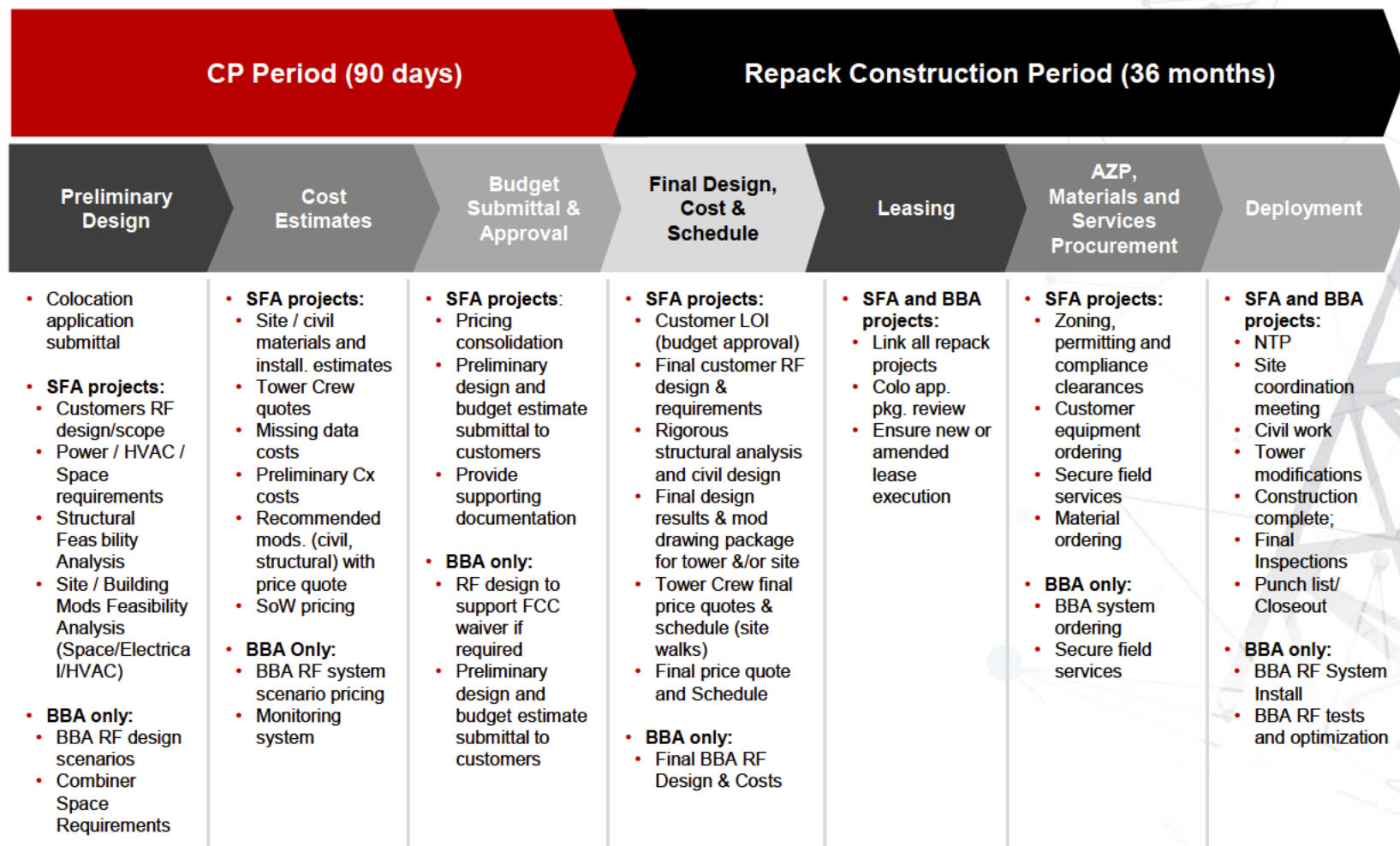


Repack Readiness – Internal Resources

ATC Team	Task	Readiness Status
Business Development	Special lease communications, negotiations and RF design scenario requirements	↑
Acquisition, Zoning & Permitting	AZP process for repack work	↑
Services Management	Repack customer services, communication plan and reporting tools	↑
External Services Sourcing	Engineering, A&E and construction services	↑
RF Equipment Sourcing and Logistics	Broadband antenna (BBA), transmission line, combiner design and components	↑
Engineering, Design, Civil and Structural	Pre-design work, standards and design process	↑
RF Design	Repack customer single frequency design review and ATC BBA design	↔
Lease and Amendment Applications & Process	Special streamlined lease process to meet tight repack time constraints	↑
Budget Estimates	Process, templates and cost components to match FCC guidelines	↑
Construction Management	Construction governance and management program	↑
Repack customer Invoicing	FCC-friendly invoicing process for repack customers	↔
Internal Tools and Systems	Siterra project management to support repack	↑



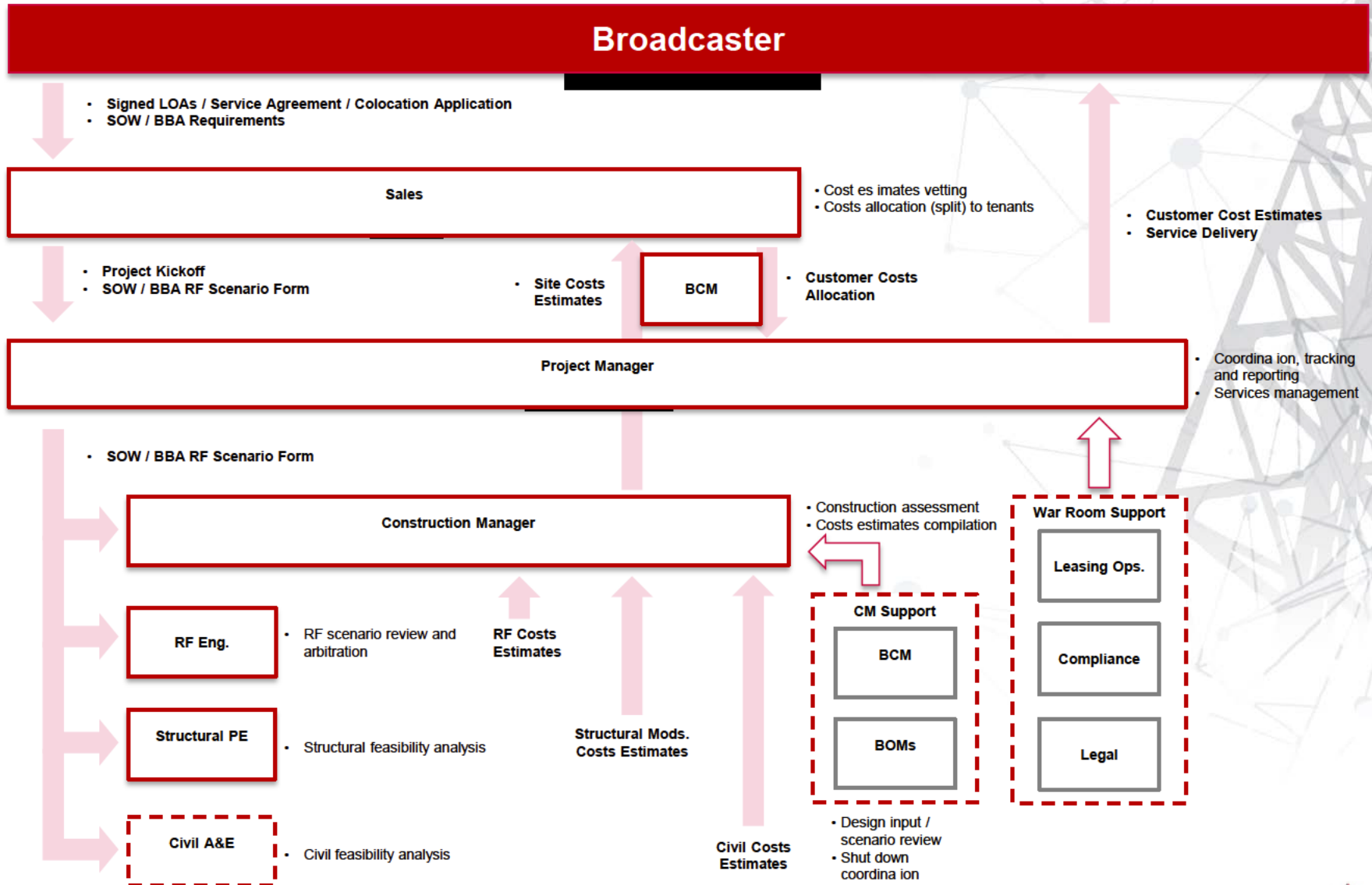
Repack Workflow Timeline



ATC has developed a Repack Scope of Work from application to NTP including the documentation and supporting material for the 90 Day CP period

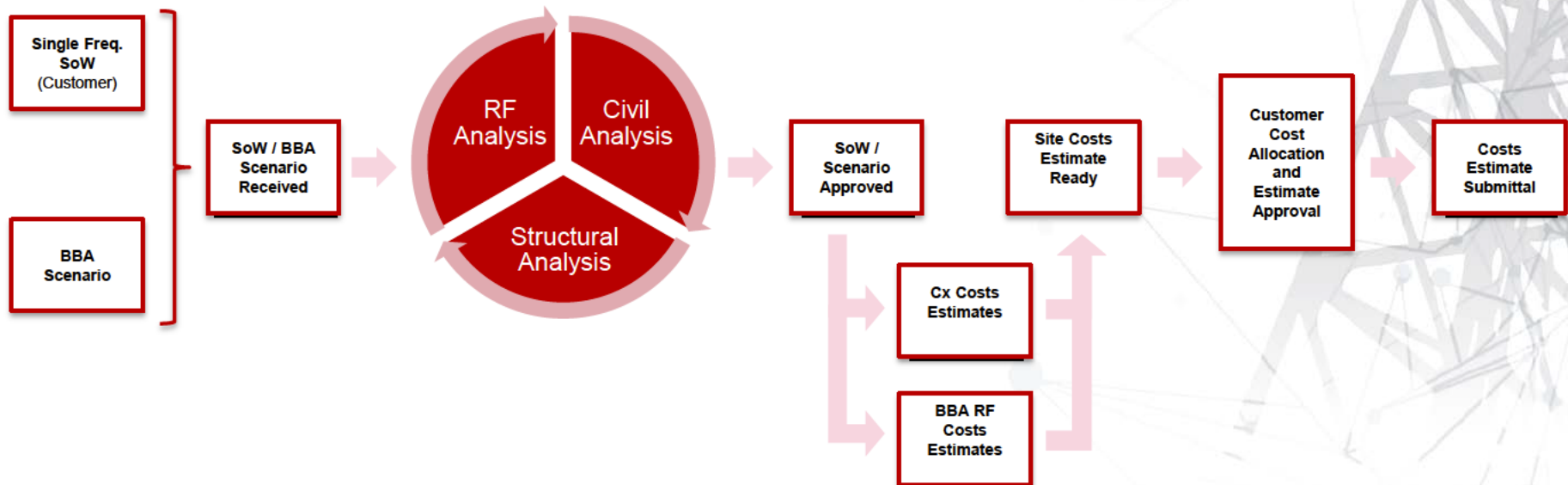


ATC Repack “War Room” – Operating Model



FCC 90-day CP and Estimated Reimbursement Cost Period

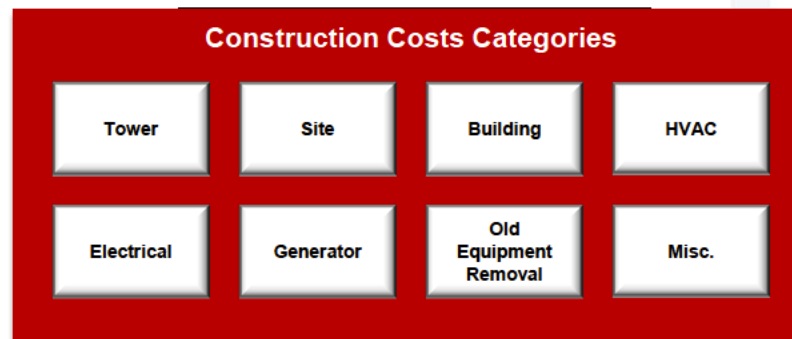
During the 90-day period, the War Room team will complete scope analyses and cost estimates with confirmed customer SoW scenarios









Construction Scope & Cost Assessment Baseline

The CM team completed an assessment for each of the priority sites in order to understand the level of effort and cost associated with getting these sites through the repack

- The analysis was conducted making assumptions based on “worst case” scenario
- ATC will be able to utilize this analysis to identify what site / tower work will be required prior, and during the repack
- CMs engaged Engineering, Civil A&E, Sales and BOMs as needed
- Tower inspections, civil audits, and CM site visits were used as input to the analysis
- Construction costs were analyzed in alignment with the catalog of costs and repack cost template structure



Repack Readiness – External Resources

External	Task	Preparedness Status
RF Transmission Equipment	Broadband antennas, transmission line, combiners, filters for both temporary and permanent use	
On-Tower Construction	Tower modifications, antenna and transmission line removals and installations	
Structural Engineering	Outsourcing of the complex structural analyses and modifications	
Tower Components	Structural steel and guy wire fabrication	
General Site Construction	Transmitter building modifications and upgrades. Required site work to accommodate tower and building and infrastructure changes	
Regulatory and Environmental	Regulatory and environmental consulting when required for height extensions, ground disturbance at special sites	

- › ATC placed a \$3.8m order for transmission line and auxiliary broadband antennas
- › Qualified tower crews and materials for the complex* sites still pose the greatest challenge to logistics and scheduling

*Tall towers, candelabra, mountaintop, broadband antenna sites



FCC – Ten Phase Repack Cutover Plan

Based on Confidential Letters, phased approach places additional challenges on planning, resources and cost

- Initial information indicates there will be a maximum number of repack stations
- Adjacent repack channels on different towers and some in existing broadband antennas will create additional interference and RF design challenges
- Seeing multiple phases in markets and some towers with multiple phases
- Stations in earlier phases will require auxiliary antennas to remain on the air for their cutover date
- Stations indicate they are planning, securing resources and building as fast as possible regardless of phase
- Phases may impede efforts for efficient mobilization and use of construction resources



Broadcast Tower Rigging Crew Resources - Update

- › Limited number of qualified broadcast tower crews still remains a challenge to the repack timeline
- › Ability to scale during high demand (limited by all contractors due to the limited qualified resource pool)
- › **Five** Tier 1 tower riggers with a total **twelve** crews qualified to work on ATC's complex towers
- › **Four** Tier 2 tower riggers with a total of **six** crews qualified for less complex rigging and lighter antenna picks
- › Discussions with riggers to verify qualifications continues

“The real transition related work has not yet started, however, and it is paramount that the wireless carriers and broadcasters involved hire only qualified contractors that are experienced and equipped to conduct the re-packing work in a safe and quality manner.” T. Schlekeway (NATE)



ATC – Existing Broadband Antennas

- › Designs optimized for certain channel range and power
- › Some models have full bandwidth but with limitations
- › 13 of the 29 optimized for mid to upper UHF band (Ch. 38+)
- › Lower UHF channel performance may be unacceptable
- › Fully researching to understand limitations



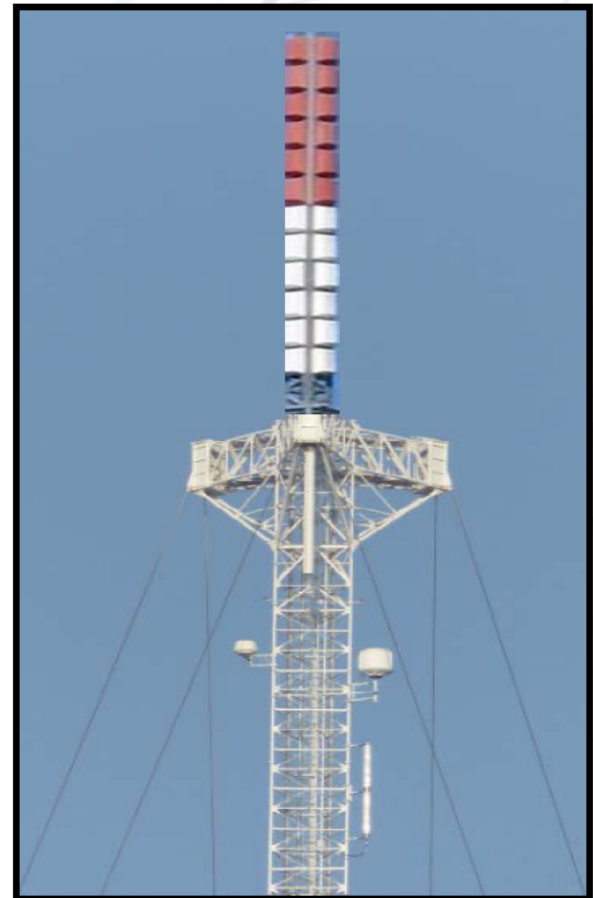
29 systems support 72 stations



ATC – New Broadband Antenna Initiative

New Broadband Antenna DMAs:

- › Los Angeles
 - › Dallas
 - › Boston
 - › Houston
 - › Tampa
 - › San Francisco
 - › Miami
 - › Oklahoma City
 - › Orlando
 - › Chicago
 - › Philadelphia
 - › 8 Additional DMAs
- In Development
- Under Review
- Pipeline



Repack Implementation Risks

> Phases

- > Multiple phases in same market
- > Multiple phases on same tower
- > Early phases for complex towers

> Riggers

- > Scarcity of qualified broadcast tower crews
- > Limited crews makes it difficult to meet phased cutovers

> Adjacent Channels

- > Additional interference when adjacent channels are on different towers

> Broadband Antennas

- > Implementation of BBA common pattern requires coverage adjustments

> RF Engineers

- > Limited field RF services for installation, testing and tuning of ground and building based RF transmission equipment (transmitters, combiners and filters)

> FM Stations

- > Major disruption of FM transmission for stations that share towers with repack TV stations



Asks

ATC respectfully requests of the FCC:

- Expedited CP review and approval for TV Licensees modifying coverage to allow for broadband antenna deployment
- Workshop session with reimbursement administrator to develop proper estimating and invoicing processes to help facilitate broadcasters' repack cost estimates and reimbursement invoicing to the FCC's administrator
- Get clarity on:
 - Requests for waiver of construction permit filing deadlines
 - Inability to construct criteria
 - Obtaining priority status
 - Ability for stations to move early on channel changes



Summary

- › ATC is operationally prepared for repack
- › ATC will continue to search for additional broadcast qualified tower riggers
- › ATC will continue to pursue its broadband antenna initiative, as it offers many advantages in the context of the repack:
 - › Facilitates multiple TV stations with a single system installation
 - › Expedites the repack process
 - › Promotes tower climbing safety by reducing the number of antenna changes and crew time on the towers
 - › Minimizes disruption/downtime to existing TV and FM operations
- › ATC will continue to develop tools to facilitate the processing of TV station reimbursement cost estimating and invoicing



Thank You

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